

I CLAIM:

1. Apparatus for monitoring flow of a fluid through a carrier, comprising:-

- (i) a valve means;
- (ii) a flow restricting element of the valve means; and
- (iii) an electronic means for determining flow of fluid past said flow restricting element, whereby fluid flow direction and flow rate is determinable.

2. Apparatus as defined in Claim 1, wherein the valve means is retro-fitted to the carrier.

3. Apparatus for converting a valve means for use as a flow meter for fluid, comprising:-

- (i) a valve housing;
- (ii) a valve mechanism of said valve housing;
- (iii) means for providing information relating to optimal placement for differential pressure measurement across the valve housing;
- (iv) means adapted to provide current position of said valve mechanism; and
- (v) means adapted to calculate flow rate from said measured differential pressure means and said valve position information means.

4. Apparatus as defined in Claim 3, wherein the means adapted to calculate flow rate comprises a calibration surface means.

5. Apparatus as defined in Claim 3, wherein said optimal placement comprises optimal tapping locations on said valve housing.
6. Apparatus as defined in Claim 3, wherein said optimal placement comprises optimal tapping locations on said valve housing, and wherein there is a removable plug at each optimal tapping location.
7. Apparatus as defined in Claim 3, wherein the valve means comprises a valve and a push-fit connector, said valve being operable when said connector is connected therewith, and automatically closable when said connector is removed.
8. Apparatus as defined in Claim 3, wherein there is means for determining a current position of the valve mechanism whereby to provide measurement of fluid flow.
9. Apparatus as defined in claim 3, wherein there is a differential pressure sensing element of said valve housing, said element being adapted to measure differential pressure across the valve means.
10. Apparatus as defined in Claim 9, wherein there is electronic means for interrogating said pressure sensing element.
11. Apparatus as defined in Claim 10, wherein said interrogating means is positioned remotely from said valve means.
12. Apparatus as defined in Claim 3, wherein there is means adapted to determine a current position of the valve mechanism.
13. Apparatus as defined in Claim 3, wherein there is an element selected from a group comprising a calibration surface and a means of calculating a flow

rate from a measured differential pressure across the valve and position of the valve.

14. A water distribution system, wherein there is incorporated apparatus as defined in claim 1.
15. A water distribution system, wherein there is incorporated apparatus as defined in Claim 3.